3) Calculate the probability of each event below:
   a) Rolling two dice and getting sum of either 3 or 11.
   b) Flipping 3 coins and getting exactly 2 heads.
   c) A bag contains 2 yellow marbles and 5 red marbles. Two marbles are drawn at random. One marble is drawn and not replaced. Then a second marble is drawn. What is the probability that the first marble is red and the second one is yellow?

2/3
1/3
1/6
1/9

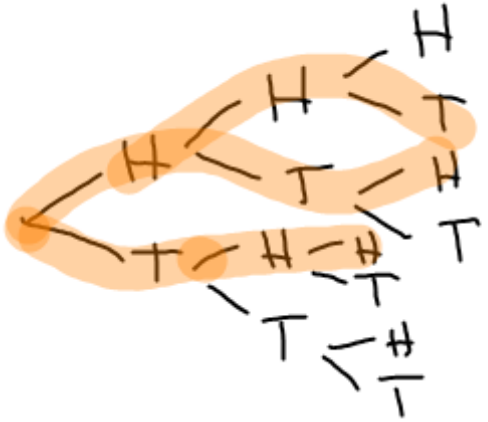
a)

D2 \ D1	1	2	3	4	5	6
1	2	3	4	5	6	7
2	3	4	5	6	7	8
3	4	5	6	7	8	9
4	5	6	7	8	9	10
5	6	7	8	9	10	11
6	7	8	9	10	11	12

$\frac{4}{36}$

$\left(\frac{1}{6}\cdot\frac{1}{6}\right)2+\left(\frac{1}{6}\cdot\frac{1}{6}\right)2$

HHT
THH
HTH



1/3

3/8

2/3

1/2

$$\left(\frac{1}{2}\cdot\frac{1}{2}\cdot\frac{1}{2}\right)3=\frac{3}{8}$$

3) Calculate the probability of each event below:
   a) Rolling two dice and getting sum of either 3 or 11.
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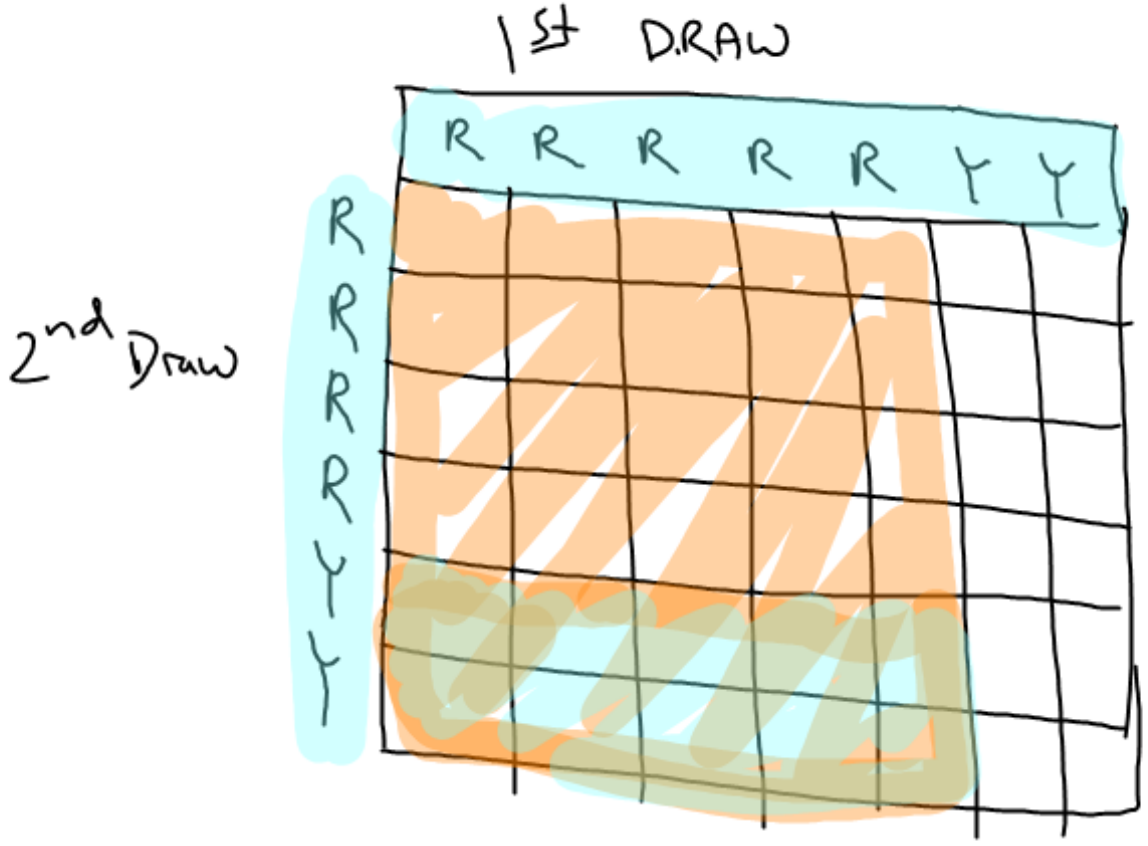

$\frac{10}{42}$

$\frac{5}{7} \cdot \frac{2}{6} = \frac{10}{42}$

Prob. of getting 1st red

Prob. of getting 2nd yellow